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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/715,425  
Filing Date: November 19, 2003  
Appellant(s): CORNET ET AL.

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Terry W. Kramer  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed April 26, 2010 appealing from the Office action mailed November 12, 2009.

**(1) Real Party in Interest**

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The following is a list of claims that are rejected and pending in the application:

Claims 1-7 and 9-12.

**(4) Status of Amendments After Final**

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

**(5) Summary of Claimed Subject Matter**

The examiner has no comment on the summary of claimed subject matter contained in the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN

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REJECTIONS.” New grounds of rejection (if any) are provided under the subheading “NEW GROUNDS OF REJECTION.”

**(7) Claims Appendix**

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant’s brief.

**(8) Evidence Relied Upon**

2003/0028654	ABJANIC	2-2003
2003/0097485	HORVITZ	5-2003
6,629,149	FRASER	9-2003
6,591,260	SCHWARZHOFF	7-2003

"The Java Tutorial: The switch Statement." Sun Microsystems. Archived by the Internet Archive on March 1, 2000:

<<http://web.archive.org/web/20000301130020/java.sun.com/docs/books/tutorial/java/nutsandbolts/switch.html>>. Pages 1-3.

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

**Claims 1-8 and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abjanic et al. (US Pub. No. 2003/0028654, hereinafter “Abjanic”) in view of Horvitz (US Pub. No. 2003/0097495), and further in view of Fraser et al. (US Patent No. 6,629,149,**

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**hereinafter “Fraser”), Schwarzhoff et al. (US Patent 6,591,260, hereinafter “Schwarzhoff”), and “The Java Tutorial: The switch Statement,” hereinafter “the Java Tutorial.”**

Regarding claim 1, note that the preamble has been given patentable weight as it is relied upon by the body of the claim.

Abjanic shows a content switch (director 145) that routes packets (comprising packets of XML data: see [0055]-[0056]) associated with a document (comprising an XML document: see [0057]) to one of a plurality of application providers (application servers: see [0029] and [0077]) in a computer based communication system using instructions recorded on a computer-readable storage medium (see [0031]), the storage medium comprising:

- instructions in the content switch that send the document to a parser (comprising the parsing system which includes XML parser 312: see [0059]);
- instructions in the parser that fetch a routing document (comprising a group of configuration patterns: see [0059]-[0061]), wherein the fetched document comprises:
  - a plurality of elements (comprising XML tags), wherein a particular element in the fetched document is also found in the sent document (for example, the “PurchaseAmount” and “To” elements, see [0042]-[0043] [0049]-[0053]) ,
  - a particular routing rule (comprising a configuration pattern: see [0052] and [0061]);) that redirects the packets to a particular server when a value

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of the particular element matches a predefined value of the particular element in the fetched document (for example, redirecting a message to server S1 if the value of the "To" element matches the value "bookstore.com": see [0049]-[0050]), and

- instructions that pass the document to a routing instruction processor (content based switching decision logic: see [0059] and [0083]);
- instructions that interpret the routing rules in the routing document (content based switching logic 316: see [0059]), wherein the content switch executes the routing rules (see [0059] and Fig. 3),
- instructions that use the interpreted routing rules to redirect the packets to a specified server (output interface 320: see [0060]) or a default server (see [0048]).

Abjanic further shows that there is a default action which redirects the packets to a default server when the value of a particular element in the sent document does not match the predefined value of the particular element in the fetched schema (see [0048]), but does not show that this default action is provided in the routing rules. In other words, the default action in Abjanic may be defined "at the factory" and not by the same configuration information that defines the routing rules.

Additionally, Abjanic does not explicitly show:

- that each application provider is a trusted customer of a network provider;
- that the document references a location of a corresponding schema, which is then fetched from that location;
- that the document is validated according to the fetched schema;

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- that the schema contains the routing rules and elements;
- that the default routing rule is in the schema document;
- that the content switch is managed by a network provider;

Schwarzhoff shows a document referencing a location of a corresponding schema, which is then fetched from that location and used to validate the document (see col. 4, lines 23-60; col. 6, lines 20-30; and col. 9, lines 1-9). It would have been obvious to modify the system of Abjanic to fetch schemas and validate documents as taught by Schwarzhoff in order to ensure that the documents conform to the expected format.

Horvitz shows a schema document associated with a packet and containing routing rules (see [0159]-[0161]). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system of Abjanic with the schema document of Horvitz in order to provide routing “hints” to a downstream network element (see Horvitz, [0161]) and reduce the total number of individual documents which must be maintained by users of the system.

The Java tutorial shows defining a default action using the same mechanism as that used to define actions for specific situations (comprising a *default* statement: see page 3). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system of Abjanic to include a default action in the routing rules in order to allow users of the system more flexibility in choosing what that default action should be.

Fraser shows that entities can be trusted customers (comprising customers who are trusted insofar as they are allowed to specify policies which are used as routing criteria) of a network provider (comprising the provider which provides WAN connectivity to a LAN), and

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that network providers can manage routing devices (comprising an inline agent). See col. 15, line 45 to col. 16, line 10. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Abjanic with the trust and management taught by Fraser in order to distribute the administrative responsibilities for the system between multiple organizations.

Regarding claim 2, the combination shows the limitations of claim 1 as applied above, and Abjanic further shows instructions that parse XML-based language (see [0028]).

Regarding claim 9, the combination shows the limitations of claim 1 as applied above, and further shows wherein:

- the fetched schema (note that the combination provides for the routing rules to be contained in a schema, as described above) comprises a plurality of particular routing rules and a plurality of predefined values of the particular element in the fetched schema (see [0049] of Abjanic, and note that the various routing rules all relate to the same particular element, the “To” element),
- each of the particular routing rules redirects the packets to a different server (for example, servers S1, S2, and S3), and
- each of the particular routing rules corresponds uniquely to one of the predefined values (for example, "bookstore.com", "stockquote.com", "computerstore.com").



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Claims 3-7 and 10-12 correspond to claims 1, 2, and 9 and are rejected for the same reasons as given above.

### **(10) Response to Argument**

Appellant argues independent claims 1, 3, 5, and 7 as a group, relying primarily on the language of claim 1. The Examiner will address Appellant's arguments in the order they are presented.

#### 1. The combination fails to teach or suggest "wherein each application provider is a trusted customer of the network provider"

On page 14 of the Brief, Appellant first argues that it is inconsistent to broadly interpret the term "trust" and apply Fraser, because "There would be no need to 'modify the system of Abjanic with the trust and management taught by Fraser' if Abjanic had those features." The Examiner disagrees because Abjanic alone was not relied upon to teach "wherein each application provider is a trusted customer of the network provider." Rather, Abjanic teaches application providers (application servers: see [0029] and [0077]) and a network provider (the necessary provider of access to Internet 130), but does not explicitly show that the application providers are trusted customers of the network provider. Fraser, on the other hand, shows entities that are trusted customers (comprising customers who are trusted insofar as they are allowed to specify policies which are used as routing criteria) of a network provider (comprising the provider which provides WAN connectivity to a LAN). See lines 1-10 of col. 16, specifically the recitation that "routing criteria can include...customer-defined policies." It would have been

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obvious to one of ordinary skill in the art at the time of the invention to modify the system of Abjanic with the trust and management taught by Fraser in order to distribute the administrative responsibilities for the system among multiple organizations. Accordingly, considered in combination, at least Abjanic and Fraser render obvious the limitation “wherein each application provider is a trusted customer of the network provider.”

Continuing on page 14, Appellant next argues that the combination does not teach “trusted customers” because “In this case ‘trust’ would refer to some contract established between an SP and a CP, such as a Service Level Agreement (SLA).” Appellant goes on to specify several features of this “contract,” including “The contract would define which XACSEs from the SP could be accessible for XML routing updates.” In response, the Examiner submits that this argument is not commensurate in scope with the claims. First, appellant has not specifically limited the meaning of “trust” (see paragraph [0035] of the instant specification). Second, the Merriam-Webster Collegiate Dictionary, Eleventh Edition defines the verb “trust” as including the meaning “to place confidence : depend.” Because the network provider of Fraser places sufficient confidence in the customers to permit them to specify policies which are used as routing criteria, the Examiner has broadly construed the claimed “trusted customer” as encompassing on the customers of Fraser.

2. The combination fails to teach or suggest “the document referencing a location of a corresponding schema”

On page 15, Appellant argues that the combination “provides no information regarding the location of the corresponding schema.” Additionally, Appellant argues that the fact that the

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schemas are “generally available” “would teach away from referencing a particular location.”

The Examiner disagrees on both counts. First, Schwarzhoff clearly teaches that an XML document can reference a location of a corresponding schema. For example, at col. 4, lines 38-41, Schwarzhoff teaches that “XML document instances are...checked for...conformance with referenced schemas.” At col. 6, lines 20-30, Schwarzhoff teaches that schemas are “in a generally available repository,” where they can be retrieved by trading partners who “follow the identifiers 212 214...in a document instance 208 to dynamically load the new schemata.” See also the depiction of these features in Fig. 2. Second, it is not clear how Schwarzhoff—who describes the “generally available” repository for schemas—“teaches away” from his own disclosure. Accordingly, the Examiner disagrees and submits that it would have been obvious to one of ordinary skill in the art to modify the system of Abjanic with the document referencing a schema as taught by Schwarzhoff in order to ensure that documents conform to the expected format.

On pages 15-16, Appellant next argues that Schwarzhoff “does not reference the location of a schema with a document” because the LDAP directory “is not a document.” The Examiner submits that the LDAP directory of Schwarzhoff is not relied upon to teach the claimed documents; rather, the XML documents of Schwarzhoff correspond to the claimed documents. Appellant goes on to argue that “the recited ‘location’ would be a technically accurate (physical, addressable specification, such as an exact URL or a complete file path and name (directory structure, actual file name).” The Examiner submits that Schwarzhoff, in fact, teaches referencing just such a location. The claims do not require that the documents *contain* the location, but merely that the documents *reference* the location. The documents of Schwarzhoff

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*reference* schemas by way of a “Universal Resource Name” (URN). The documents contain a URN, which are then fed into an LDAP directory to look up a physical *location* from which the schema may be accessed. See col. 7, lines 18-47 and col. 9, lines 1-9. Thus, the documents *reference* a location of the schema.

3. The combination fails to teach or suggest “instructions in the parser that fetch the corresponding schema”

On page 16, Appellant argues that “Abjanic’s use of an XML director...would teach away from the claimed subject matter of having routing rules within a schema.” This argument is unclear. Particularly, it is not clear how Abjanic's disclosure of an XML director discourages the use of routing rules within a fetched schema. In fact, the Examiner submits that the opposite is true—that far from discourage the combination, the references actually encourage it. XML documents are designed to be used in conjunction with XML schemas. Thus, a reference such as Horvitz, which teaches including routing information *within* an XML schema (see [0159]-[0161], particularly disclosure of “routing and alerting hints” at bottom of page 18), would lend itself well to the system of Abjanic, which uses both routing rules and XML documents. Similarly, Schwarzhoff (which teaches, *inter alia*, the “fetching” of schemas: see col. 6, lines 20-30) is also XML related, and also would lend itself to the system of Abjanic.

Appellant goes on to argue that the Examiner has failed “to provide articulated reasoning to justify the combination of inconsistent excerpts from multiple prior art references.” The Examiner disagrees. As explained in the rejection, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system of Abjanic with the

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schema document of Horvitz in order to provide routing “hints” to a downstream network element (see Horvitz, [0161]) and reduce the total number of individual documents which must be maintained by users of the system. Additionally, it would have been obvious to modify the system of Abjanic to fetch schemas and validate documents as taught by Schwarzhoff in order to ensure that the documents conform to the expected format.

4. The combination fails to teach or suggest “instructions in the parser that validate the sent document according to the fetched schema”

On pages 16-17, Appellant argues that Schwarzhoff’s teachings of “polymorphic” and “generally available” schemas with “globally unique names” “teach away” from the claimed invention. Appellant’s arguments are again unclear, as Appellant again appears to be arguing that Schwarzhoff teaches away from his own disclosure. Additionally, it is not clear how any of the listed teachings—polymorphism, globally unique names for schemas, and general availability of the schemas—discourage or otherwise discredit the claimed invention. In the context of Schwarzhoff, polymorphism is a property which allows re-use of existing schema elements. As an example, the <Address> element in the CBL schema can be re-used in the PurchaseOrder schema. See col. 5, line 18 to col. 6, line 17. In no way does this discourage or “teach away” from the use of validating documents according to a schema. Similarly, in no way does the fact that the schemas have “globally unique names” or the fact that they are “globally available” discourage their use in validating documents. Indeed, Schwarzhoff explicitly discloses using these schemas for validation (see col. 4, lines 38-42 and col. 6, lines 20-30).

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5. The combination fails to teach or suggest “instructions in the parser that pass the validated document to a routing instruction processor”

Appellant argues that “Abjanic fails to disclose a validated document” and that Abjanic “does not pass the validated document to a routing instruction processor.” In response, the Examiner submits that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, Abjanic shows instructions in the parser that pass the document to a routing instruction processor (comprising instructions which pass the document to content based switching decision logic: see [0059] and [0083]). Abjanic does not show that the instructions pass a validated document. Schwarzhoff shows validating documents (see col. 4, lines 39-41). It would have been obvious to modify the system of Abjanic to validate documents as taught by Schwarzhoff in order to ensure that the documents conform to the expected format.

6. The combination fails to teach or suggest the subject matter of dependent claims 2, 4, 6, and 9-12

With respect to the dependent claims, Appellant relies upon arguments already addressed above.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner’s answer.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Christopher Biagini/

Examiner, Art Unit 2442

/Philip C Lee/

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